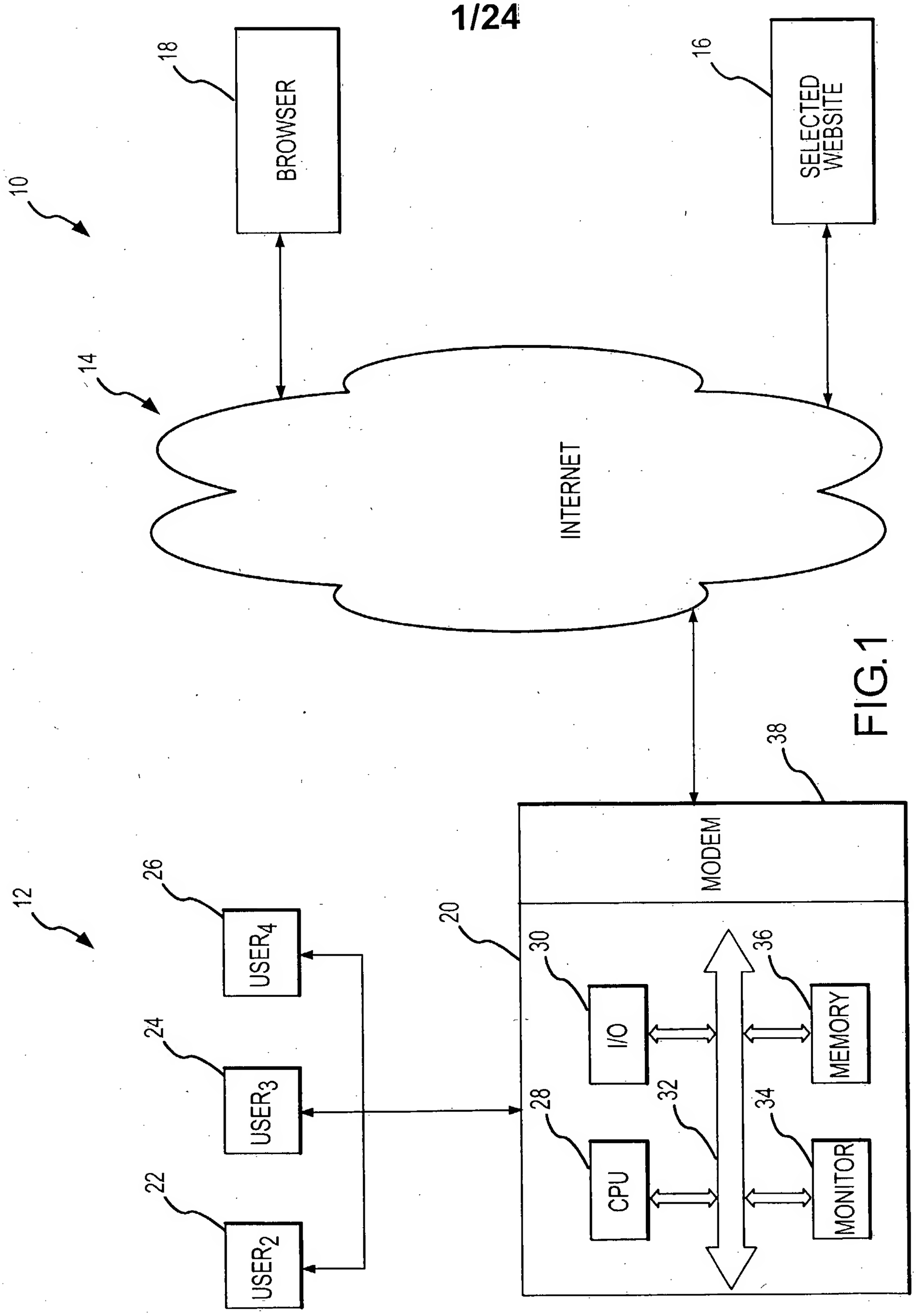

10
12
14
16
18
20
22
24
26
30
28
32
34
36
38
BROWSER
SELECTED WEBSITE
INTERNET
MODEM
I/O
CPU
MEMORY
MONITOR
USER2
USER3
USER4

FIG.1

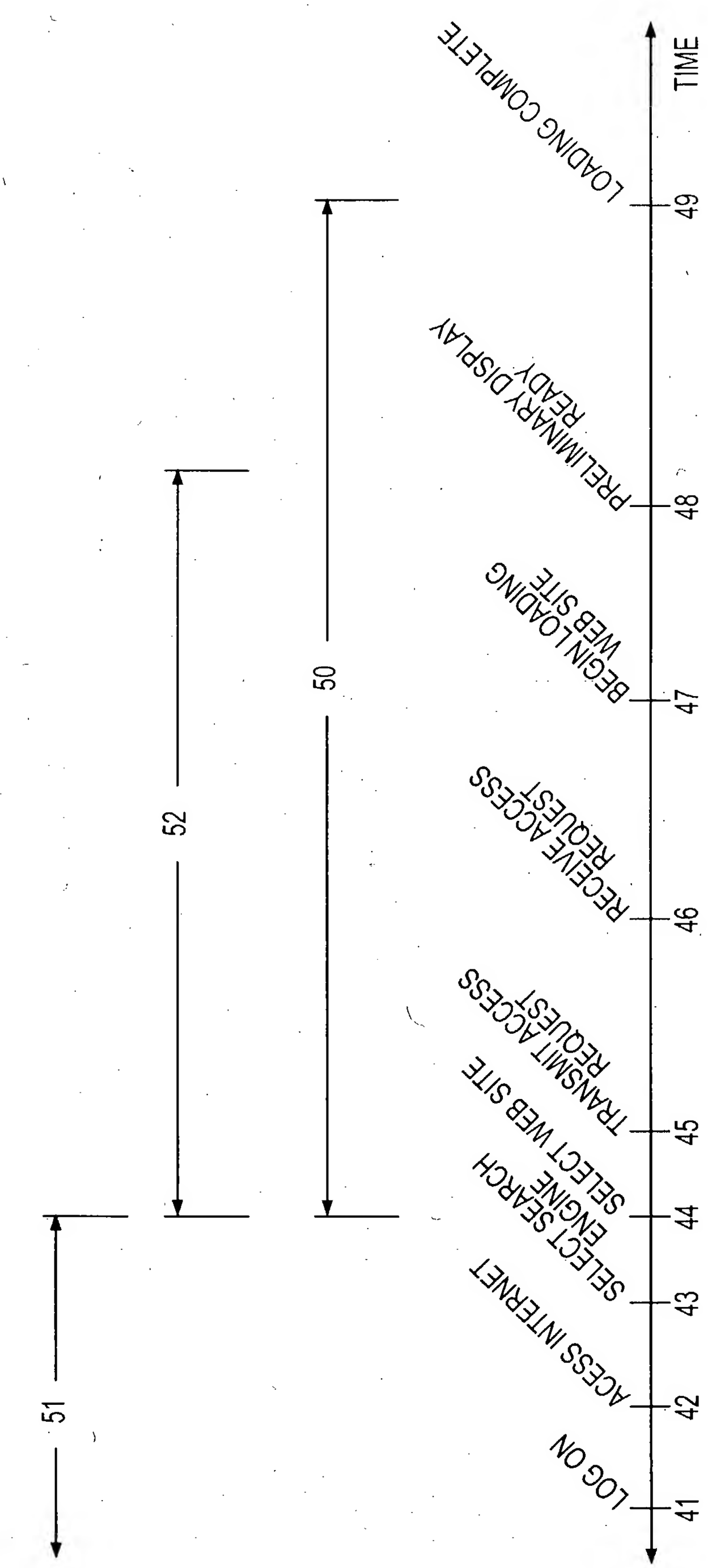
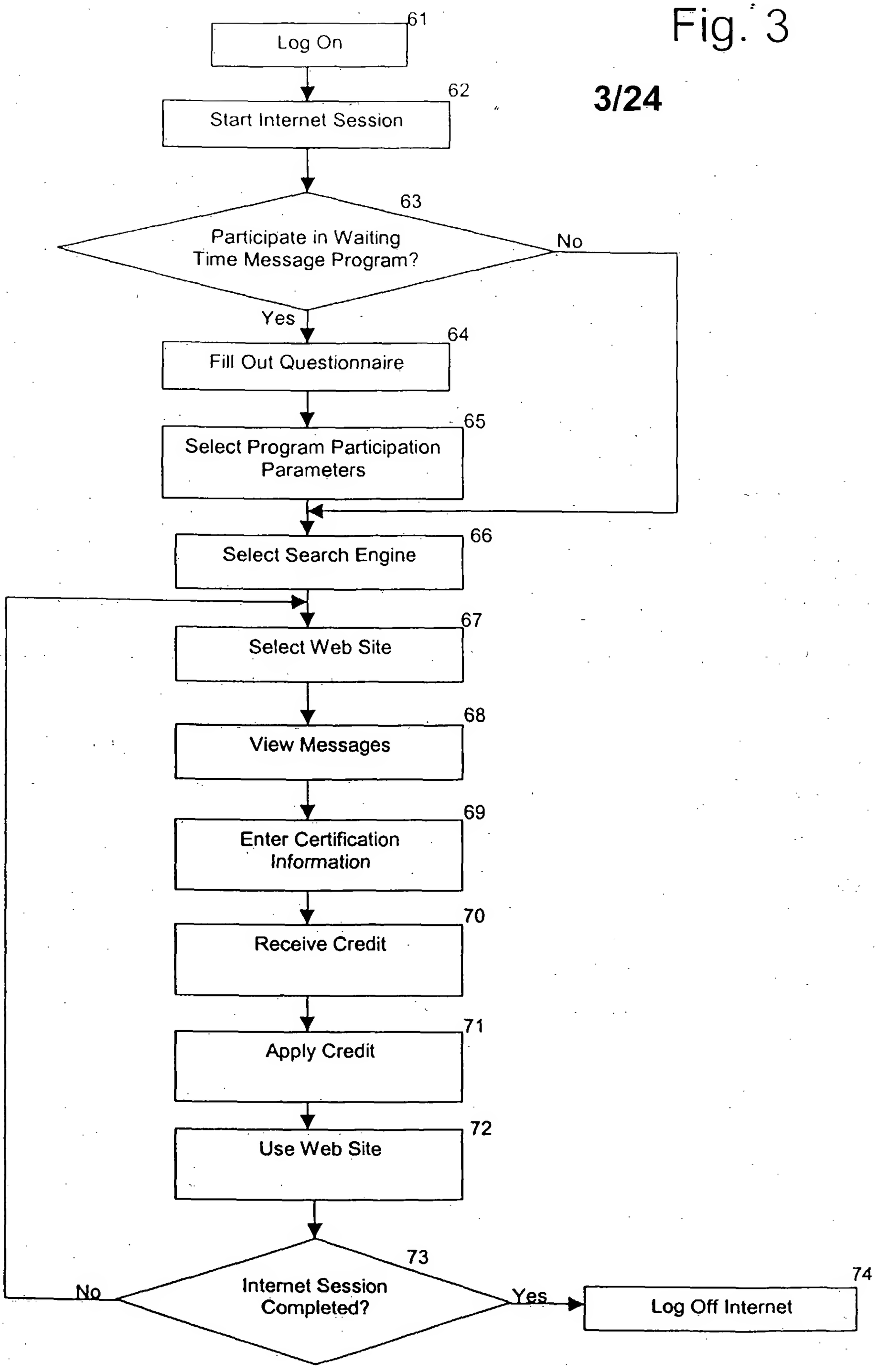

TIME
LOADING COMPLETE
49
PRELIMINARY DISPLAY READY
48
BEGIN LOADING WEB SITE
47
RECEIVE ACCESS REQUEST
46
TRANSMIT ACCESS REQUEST
45
SELECT WEB SITE
44
SELECT SEARCH ENGINE
43
ACCESS INTERNET
42
LOG ON
41
50
52
51

FIG.2

Fig. 3


61
Log On
62
Start Internet Session
63
Participate in Waiting Time Message Program?
No
Yes
64
Fill Out Questionnaire
65
Select Program Participation Parameters
66
Select Search Engine
67
Select Web Site
68
View Messages
69
Enter Certification Information
70
Receive Credit
71
Apply Credit
72
Use Web Site
73
Internet Session Completed?
No
Yes
74
Log Off Internet

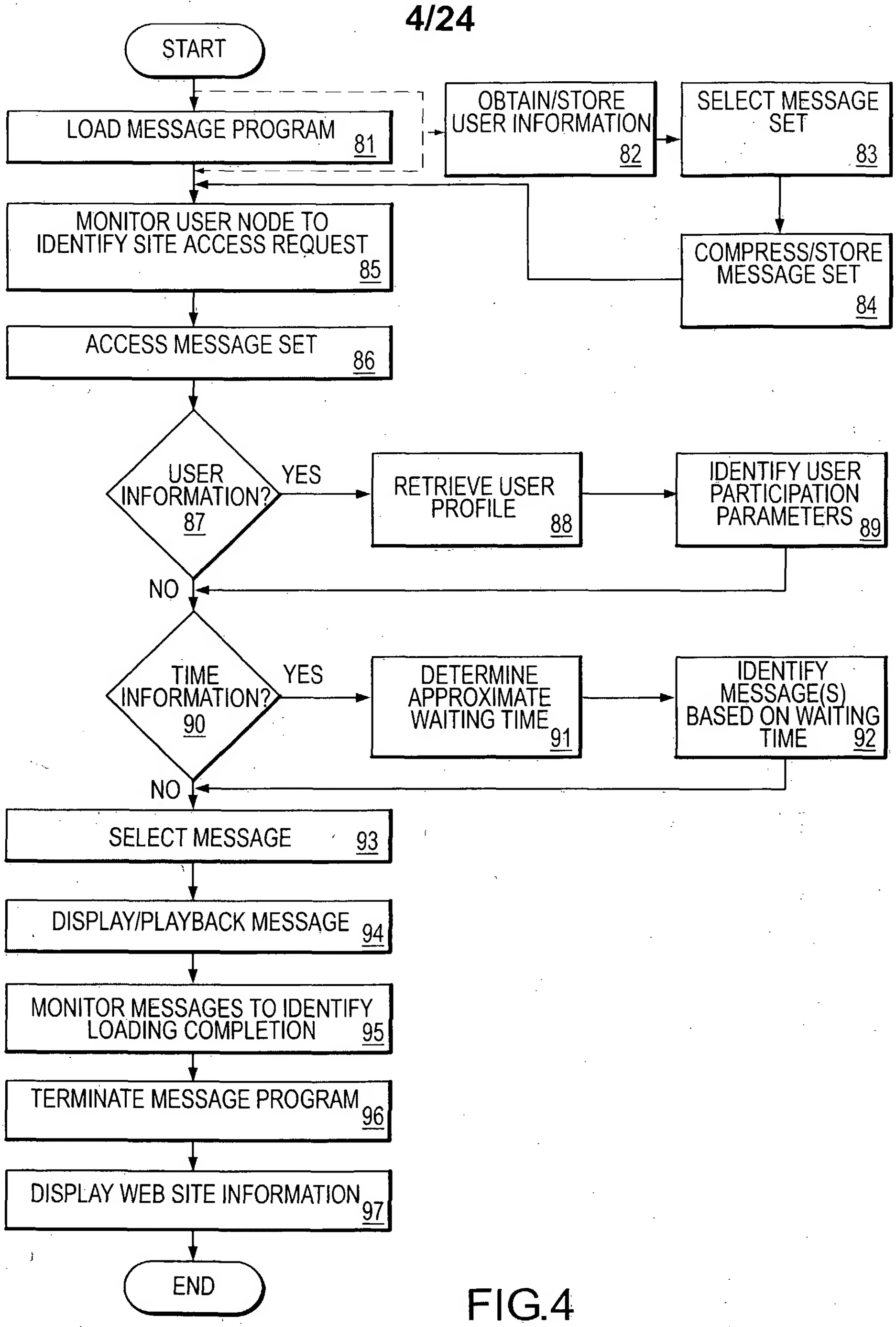

START
LOAD MESSAGE PROGRAM 81
OBTAIN/STORE USER INFORMATION 82
SELECT MESSAGE SET 83
COMPRESS/STORE MESSAGE SET 84
MONITOR USER NODE TO IDENTIFY SITE ACCESS REQUEST 85
ACCESS MESSAGE SET 86
USER INFORMATION? 87
YES
RETRIEVE USER PROFILE 88
IDENTIFY USER PARTICIPATION PARAMETERS 89
NO
TIME INFORMATION? 90
YES
DETERMINE APPROXIMATE WAITING TIME 91
IDENTIFY MESSAGE(S) BASED ON WAITING TIME 92
NO
SELECT MESSAGE 93
DISPLAY/PLAYBACK MESSAGE 94
MONITOR MESSAGES TO IDENTIFY LOADING COMPLETION 95
TERMINATE MESSAGE PROGRAM 96
DISPLAY WEB SITE INFORMATION 97
END

FIG.4

Title: METHOD FOR PROVIDING NODE TARGETED CONTENT IN AN ADDRESSABLE NETWORK
Inventors: John R. Klug et al.
Docket No.: 11060.01/11489/US/1

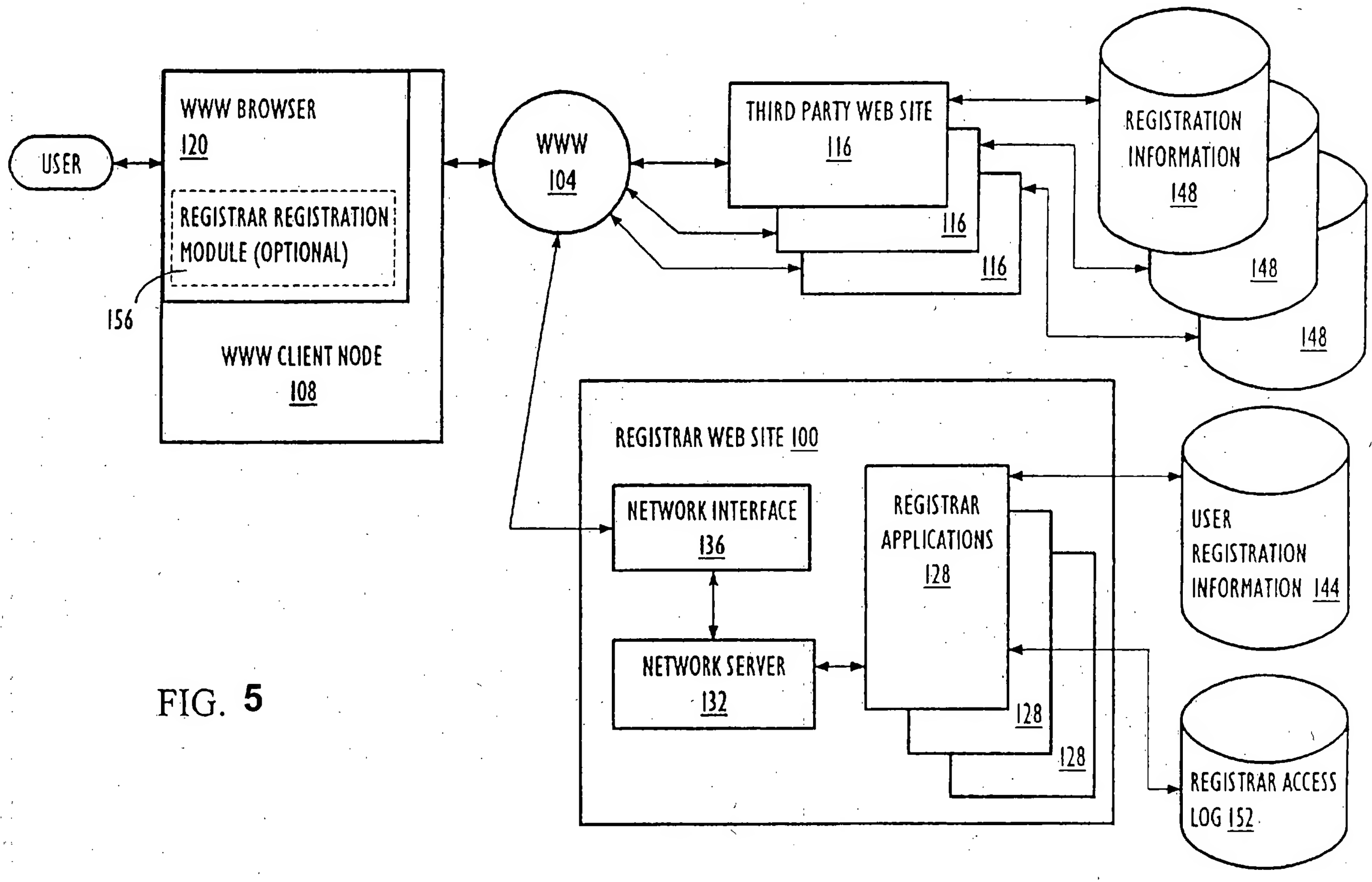
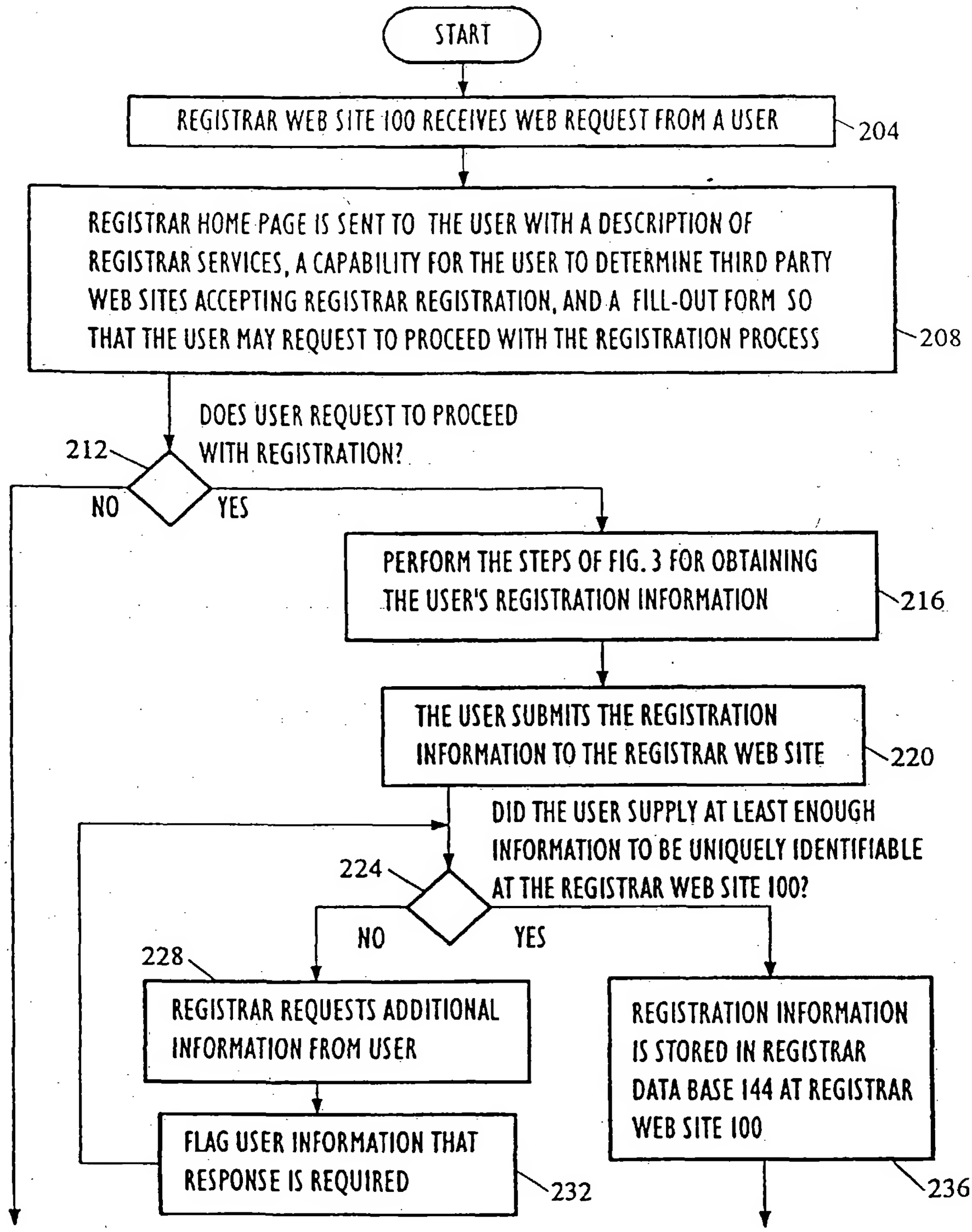


FIG. 5

FIG. 6A


START
REGISTRAR WEB SITE 100 RECEIVES WEB REQUEST FROM A USER
204
REGISTRAR HOME PAGE IS SENT TO THE USER WITH A DESCRIPTION OF REGISTRAR SERVICES, A CAPABILITY FOR THE USER TO DETERMINE THIRD PARTY WEB SITES ACCEPTING REGISTRAR REGISTRATION, AND A FILL-OUT FORM SO THAT THE USER MAY REQUEST TO PROCEED WITH THE REGISTRATION PROCESS
208
212
DOES USER REQUEST TO PROCEED WITH REGISTRATION?
NO
YES
PERFORM THE STEPS OF FIG. 3 FOR OBTAINING THE USER'S REGISTRATION INFORMATION
216
THE USER SUBMITS THE REGISTRATION INFORMATION TO THE REGISTRAR WEB SITE
220
224
DID THE USER SUPPLY AT LEAST ENOUGH INFORMATION TO BE UNIQUELY IDENTIFIABLE AT THE REGISTRAR WEB SITE 100?
NO
YES
228
REGISTRAR REQUESTS ADDITIONAL INFORMATION FROM USER
FLAG USER INFORMATION THAT RESPONSE IS REQUIRED
232
REGISTRATION INFORMATION IS STORED IN REGISTRAR DATA BASE 144 AT REGISTRAR WEB SITE 100
236

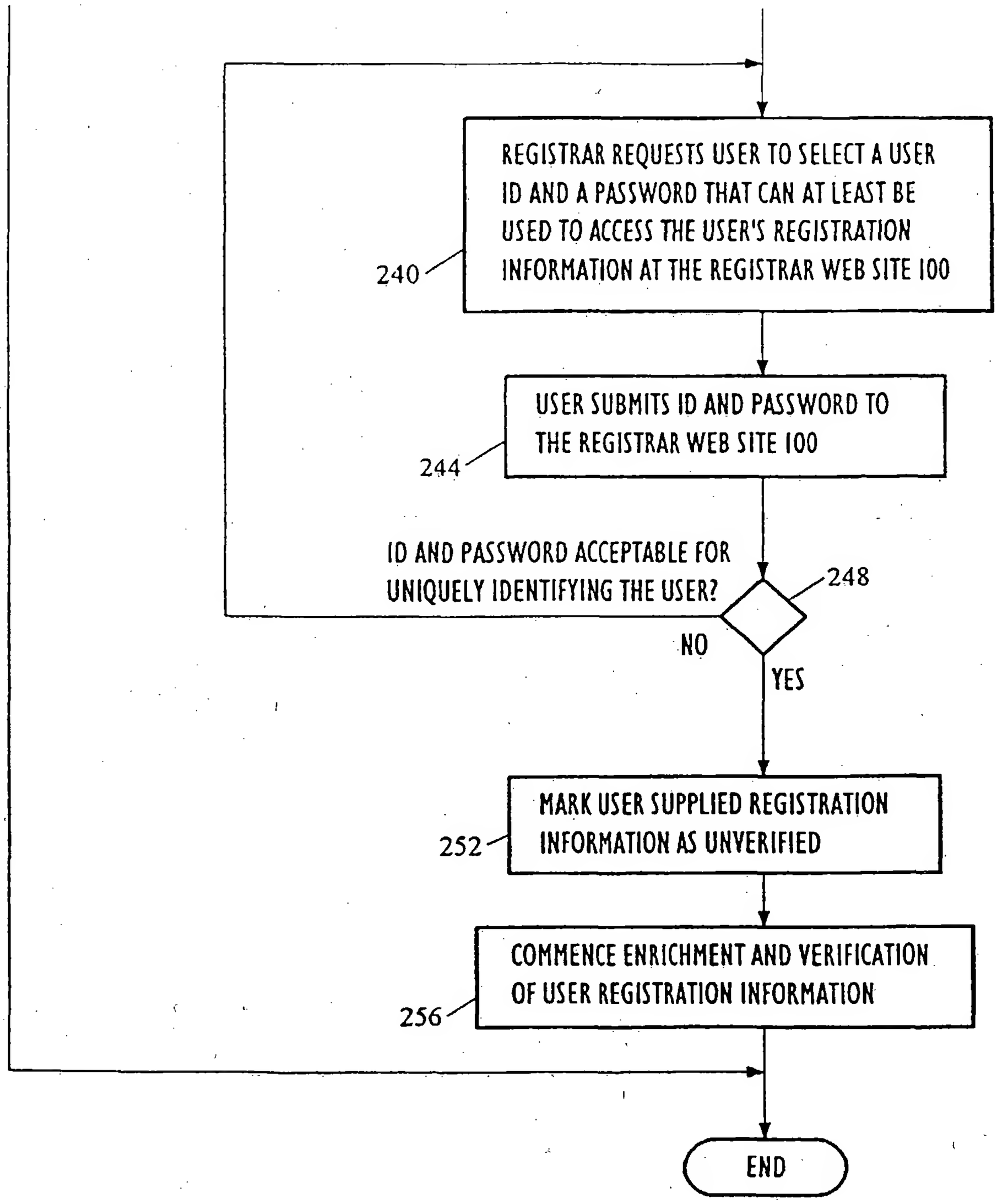

REGISTRAR REQUESTS USER TO SELECT A USER ID AND A PASSWORD THAT CAN AT LEAST BE USED TO ACCESS THE USER'S REGISTRATION INFORMATION AT THE REGISTRAR WEB SITE 100
240
USER SUBMITS ID AND PASSWORD TO THE REGISTRAR WEB SITE 100
244
ID AND PASSWORD ACCEPTABLE FOR UNIQUELY IDENTIFYING THE USER?
248
NO
YES
MARK USER SUPPLIED REGISTRATION INFORMATION AS UNVERIFIED
252
COMMENCE ENRICHMENT AND VERIFICATION OF USER REGISTRATION INFORMATION
256
END

FIG. 6B

FIG 7

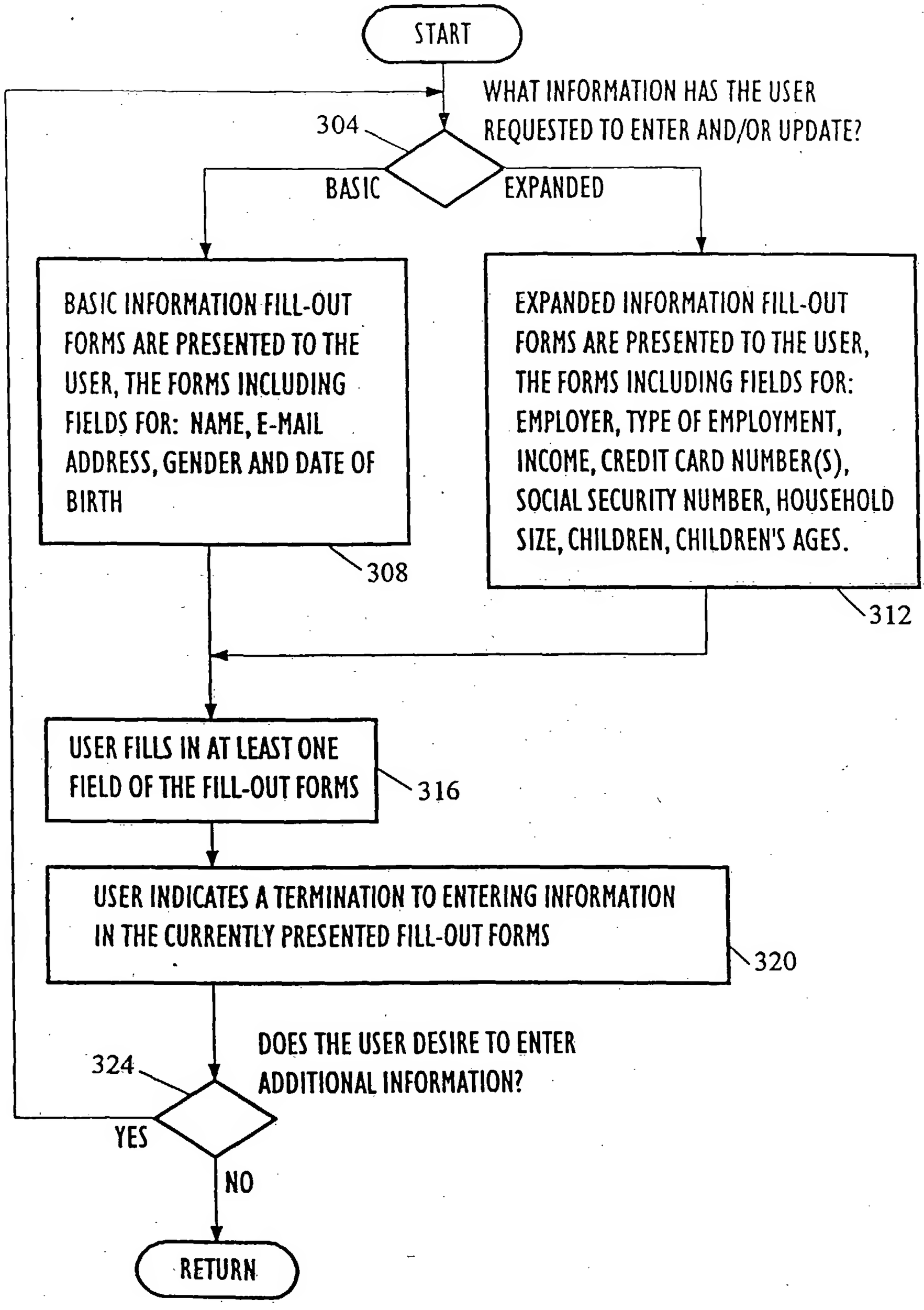
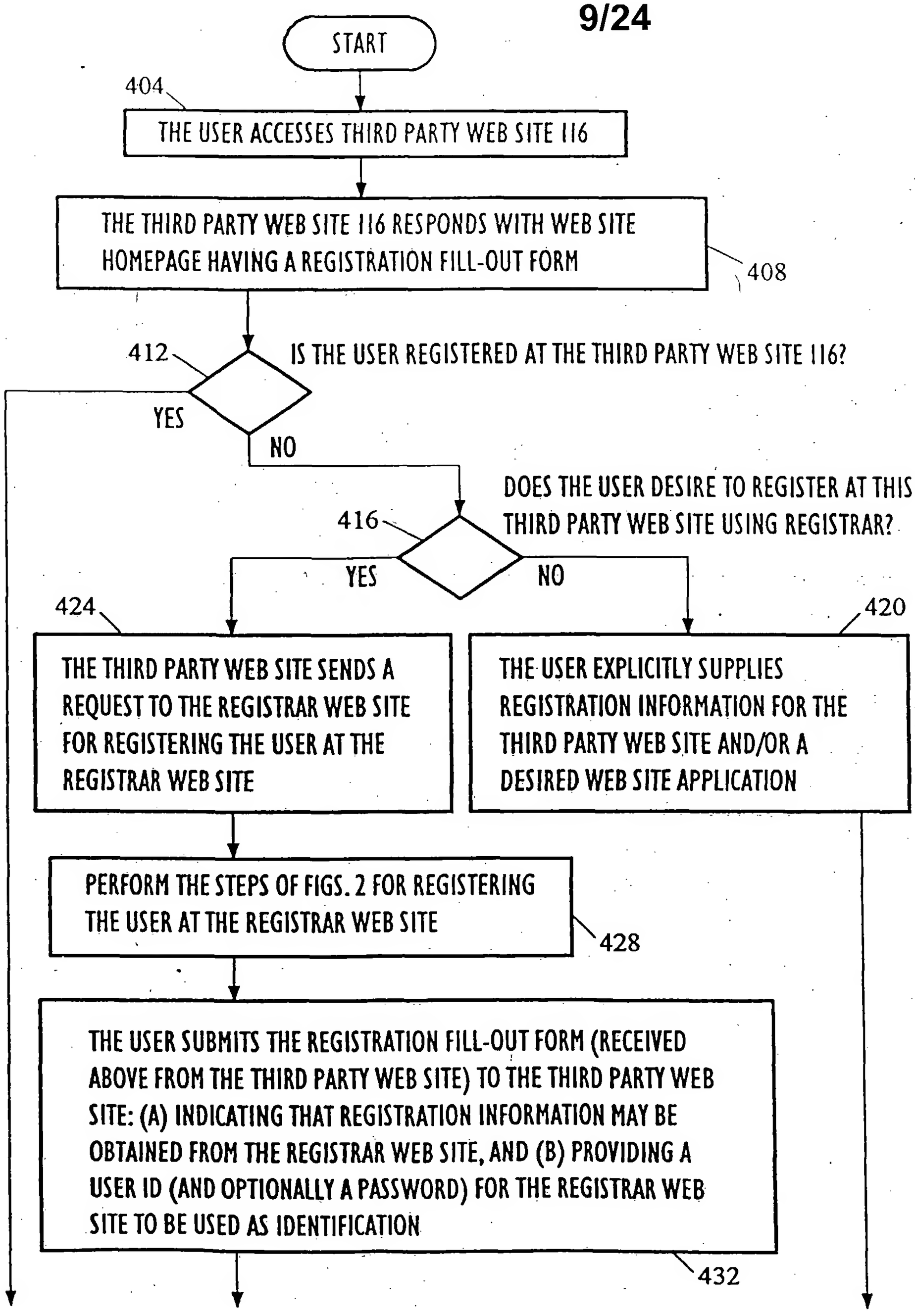

START
WHAT INFORMATION HAS THE USER REQUESTED TO ENTER AND/OR UPDATE?
304
BASIC
EXPANDED
BASIC INFORMATION FILL-OUT FORMS ARE PRESENTED TO THE USER, THE FORMS INCLUDING FIELDS FOR: NAME, E-MAIL ADDRESS, GENDER AND DATE OF BIRTH
308
EXPANDED INFORMATION FILL-OUT FORMS ARE PRESENTED TO THE USER, THE FORMS INCLUDING FIELDS FOR: EMPLOYER, TYPE OF EMPLOYMENT, INCOME, CREDIT CARD NUMBER(S), SOCIAL SECURITY NUMBER, HOUSEHOLD SIZE, CHILDREN, CHILDREN'S AGES.
312
USER FILLS IN AT LEAST ONE FIELD OF THE FILL-OUT FORMS
316
USER INDICATES A TERMINATION TO ENTERING INFORMATION IN THE CURRENTLY PRESENTED FILL-OUT FORMS
320
DOES THE USER DESIRE TO ENTER ADDITIONAL INFORMATION?
324
YES
NO
RETURN

FIG. 8A THE USER REGISTERS AT THE REGISTRAR WEB SITE WHEREIN A THIRD PARTY WEB SITE IS FIRST ACCESSED



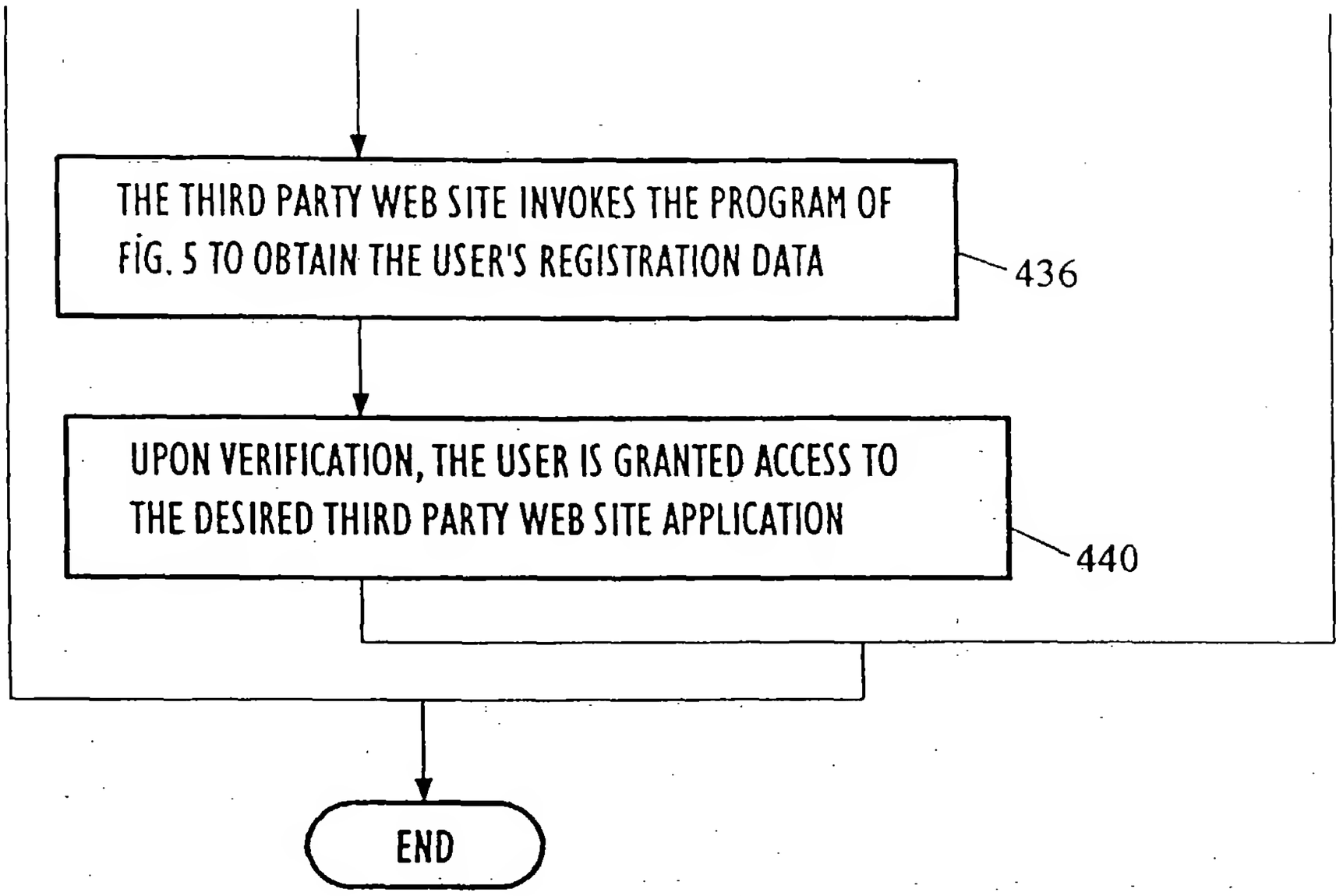

THE THIRD PARTY WEB SITE INVOKES THE PROGRAM OF FIG. 5 TO OBTAIN THE USER'S REGISTRATION DATA
436
UPON VERIFICATION, THE USER IS GRANTED ACCESS TO THE DESIRED THIRD PARTY WEB SITE APPLICATION
440
END

FIG. **8B**

FIG. 9 REGISTRATION TRANSMISSION PROCESS BETWEEN REGISTRAR WEB SITE AND THIRD PARTY WEB SITE (MAY BE INVOKED BY FIGS. 4)

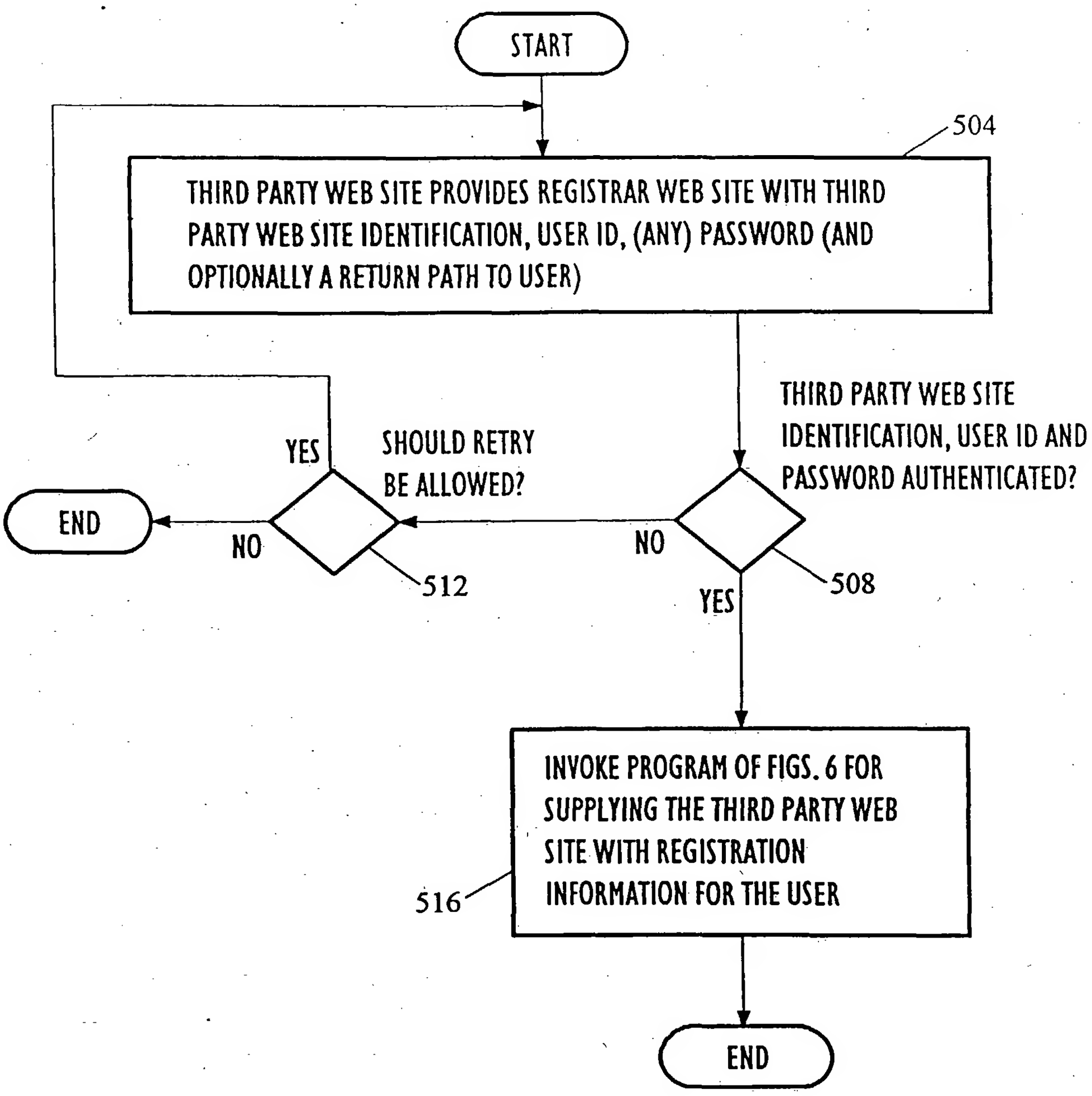


FIG. 10A

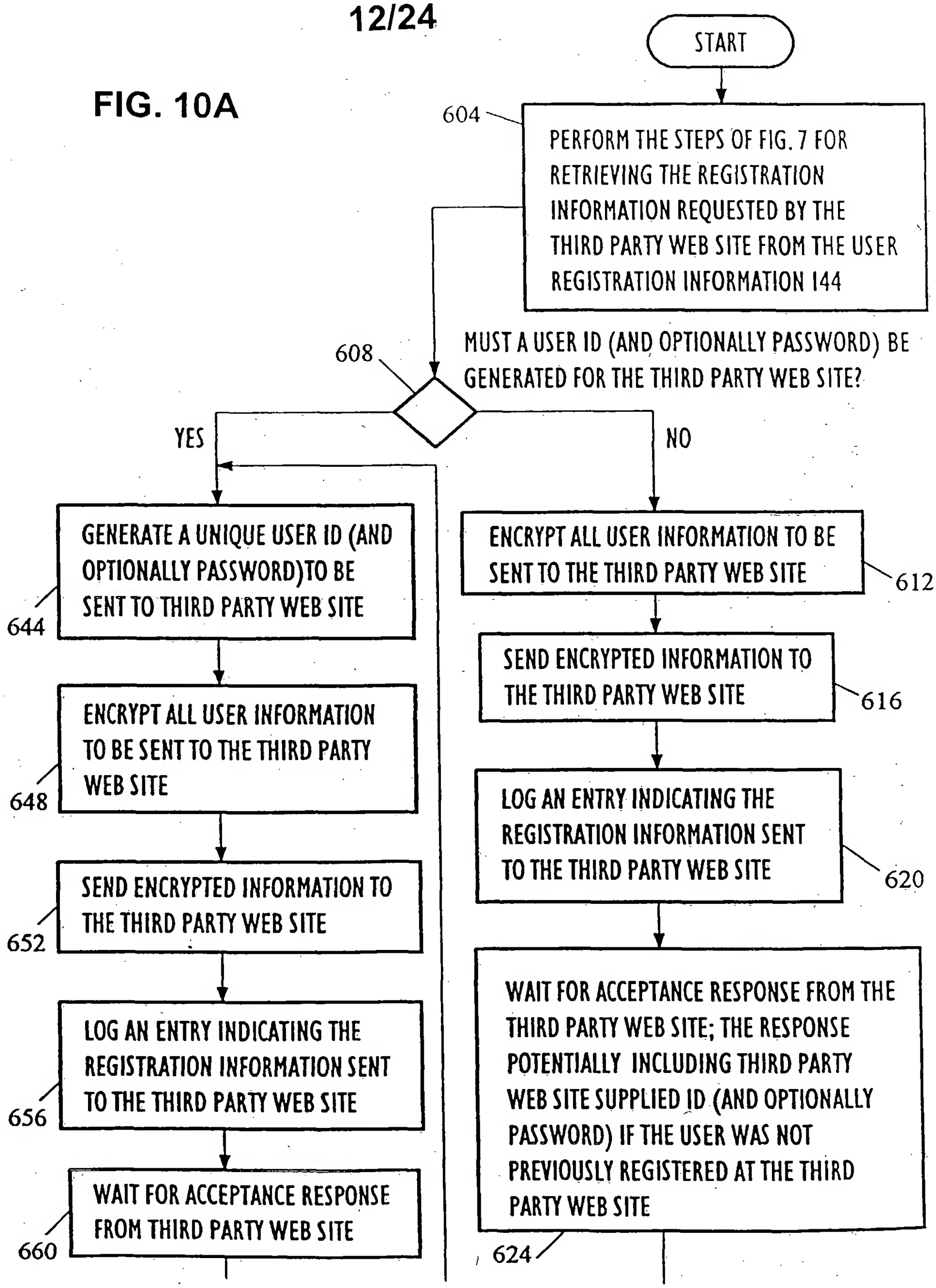

START
604
PERFORM THE STEPS OF FIG. 7 FOR RETRIEVING THE REGISTRATION INFORMATION REQUESTED BY THE THIRD PARTY WEB SITE FROM THE USER REGISTRATION INFORMATION 144
608
MUST A USER ID (AND OPTIONALLY PASSWORD) BE GENERATED FOR THE THIRD PARTY WEB SITE?
YES
NO
644
GENERATE A UNIQUE USER ID (AND OPTIONALLY PASSWORD)TO BE SENT TO THIRD PARTY WEB SITE
648
ENCRYPT ALL USER INFORMATION TO BE SENT TO THE THIRD PARTY WEB SITE
652
SEND ENCRYPTED INFORMATION TO THE THIRD PARTY WEB SITE
656
LOG AN ENTRY INDICATING THE REGISTRATION INFORMATION SENT TO THE THIRD PARTY WEB SITE
660
WAIT FOR ACCEPTANCE RESPONSE FROM THIRD PARTY WEB SITE
612
ENCRYPT ALL USER INFORMATION TO BE SENT TO THE THIRD PARTY WEB SITE
616
SEND ENCRYPTED INFORMATION TO THE THIRD PARTY WEB SITE
620
LOG AN ENTRY INDICATING THE REGISTRATION INFORMATION SENT TO THE THIRD PARTY WEB SITE
624
WAIT FOR ACCEPTANCE RESPONSE FROM THE THIRD PARTY WEB SITE; THE RESPONSE POTENTIALLY INCLUDING THIRD PARTY WEB SITE SUPPLIED ID (AND OPTIONALLY PASSWORD) IF THE USER WAS NOT PREVIOUSLY REGISTERED AT THE THIRD PARTY WEB SITE

FIG. 10B

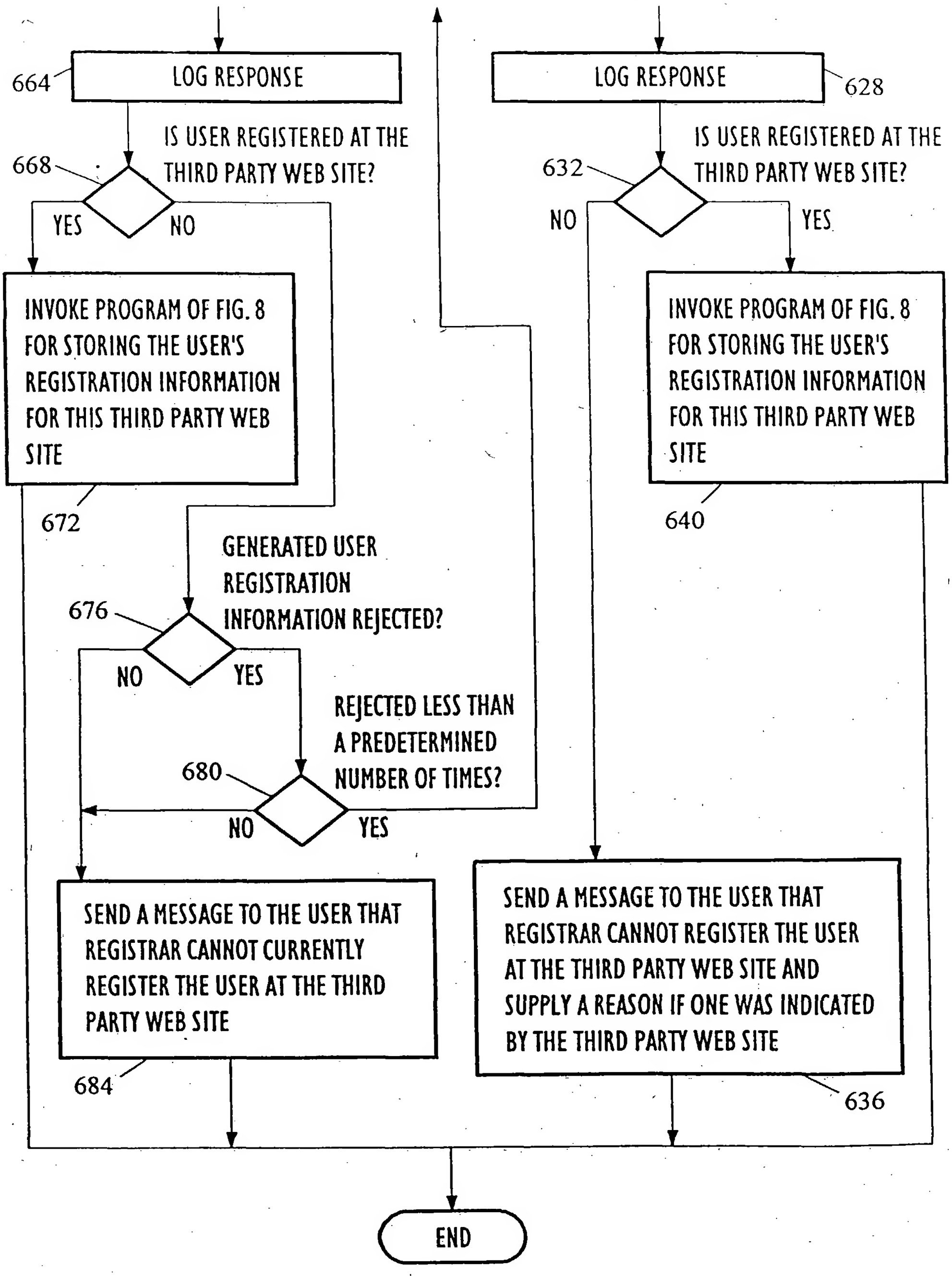

664
LOG RESPONSE
668
IS USER REGISTERED AT THE THIRD PARTY WEB SITE?
YES
NO
INVOKE PROGRAM OF FIG. 8 FOR STORING THE USER'S REGISTRATION INFORMATION FOR THIS THIRD PARTY WEB SITE
672
GENERATED USER REGISTRATION INFORMATION REJECTED?
676
NO
YES
REJECTED LESS THAN A PREDETERMINED NUMBER OF TIMES?
680
NO
YES
SEND A MESSAGE TO THE USER THAT REGISTRAR CANNOT CURRENTLY REGISTER THE USER AT THE THIRD PARTY WEB SITE
684
628
LOG RESPONSE
632
IS USER REGISTERED AT THE THIRD PARTY WEB SITE?
NO
YES
INVOKE PROGRAM OF FIG. 8 FOR STORING THE USER'S REGISTRATION INFORMATION FOR THIS THIRD PARTY WEB SITE
640
SEND A MESSAGE TO THE USER THAT REGISTRAR CANNOT REGISTER THE USER AT THE THIRD PARTY WEB SITE AND SUPPLY A REASON IF ONE WAS INDICATED BY THE THIRD PARTY WEB SITE
636
END

FIG. 11

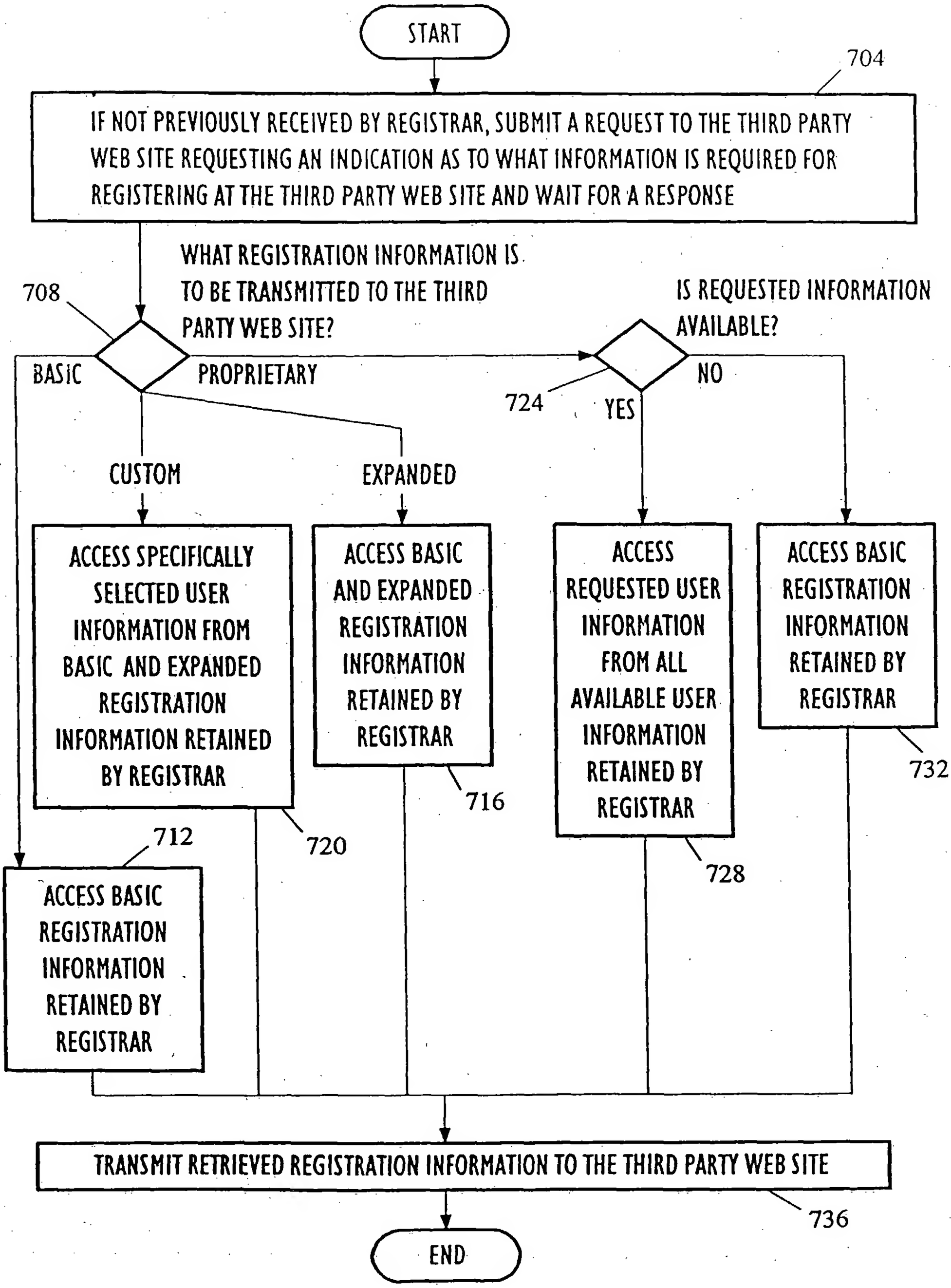

START
704
IF NOT PREVIOUSLY RECEIVED BY REGISTRAR, SUBMIT A REQUEST TO THE THIRD PARTY WEB SITE REQUESTING AN INDICATION AS TO WHAT INFORMATION IS REQUIRED FOR REGISTERING AT THE THIRD PARTY WEB SITE AND WAIT FOR A RESPONSE
708
WHAT REGISTRATION INFORMATION IS TO BE TRANSMITTED TO THE THIRD PARTY WEB SITE?
BASIC
PROPRIETARY
CUSTOM
EXPANDED
ACCESS SPECIFICALLY SELECTED USER INFORMATION FROM BASIC AND EXPANDED REGISTRATION INFORMATION RETAINED BY REGISTRAR
712
ACCESS BASIC REGISTRATION INFORMATION RETAINED BY REGISTRAR
720
ACCESS BASIC AND EXPANDED REGISTRATION INFORMATION RETAINED BY REGISTRAR
716
IS REQUESTED INFORMATION AVAILABLE?
724
YES
NO
ACCESS REQUESTED USER INFORMATION FROM ALL AVAILABLE USER INFORMATION RETAINED BY REGISTRAR
728
ACCESS BASIC REGISTRATION INFORMATION RETAINED BY REGISTRAR
732
TRANSMIT RETRIEVED REGISTRATION INFORMATION TO THE THIRD PARTY WEB SITE
736
END

FIG. 12

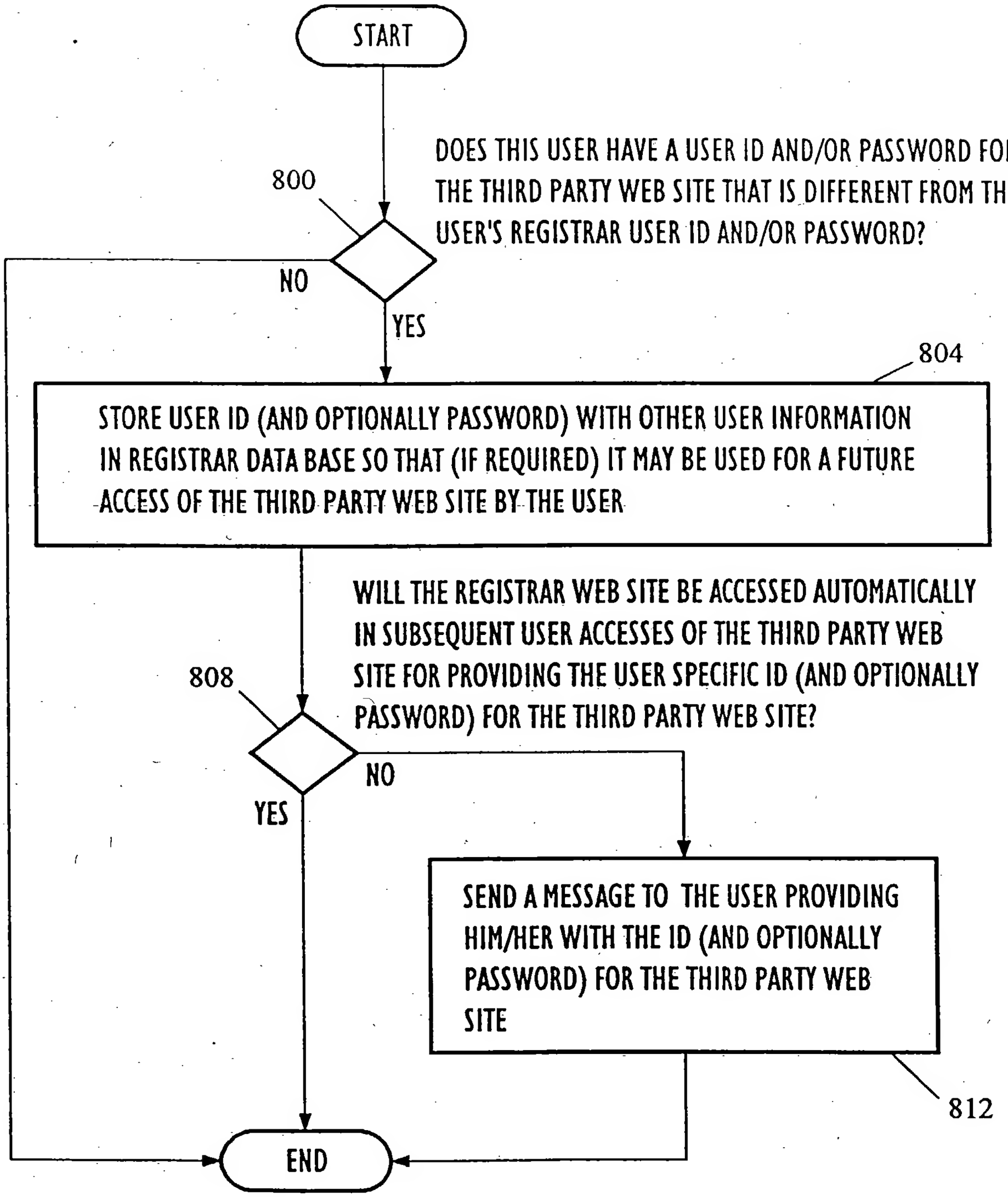

START
800
DOES THIS USER HAVE A USER ID AND/OR PASSWORD FOR THE THIRD PARTY WEB SITE THAT IS DIFFERENT FROM THE USER'S REGISTRAR USER ID AND/OR PASSWORD?
NO
YES
804
STORE USER ID (AND OPTIONALLY PASSWORD) WITH OTHER USER INFORMATION IN REGISTRAR DATA BASE SO THAT (IF REQUIRED) IT MAY BE USED FOR A FUTURE ACCESS OF THE THIRD PARTY WEB SITE BY THE USER
808
WILL THE REGISTRAR WEB SITE BE ACCESSED AUTOMATICALLY IN SUBSEQUENT USER ACCESSES OF THE THIRD PARTY WEB SITE FOR PROVIDING THE USER SPECIFIC ID (AND OPTIONALLY PASSWORD) FOR THE THIRD PARTY WEB SITE?
NO
YES
SEND A MESSAGE TO THE USER PROVIDING HIM/HER WITH THE ID (AND OPTIONALLY PASSWORD) FOR THE THIRD PARTY WEB SITE
812
END

FIG. 13

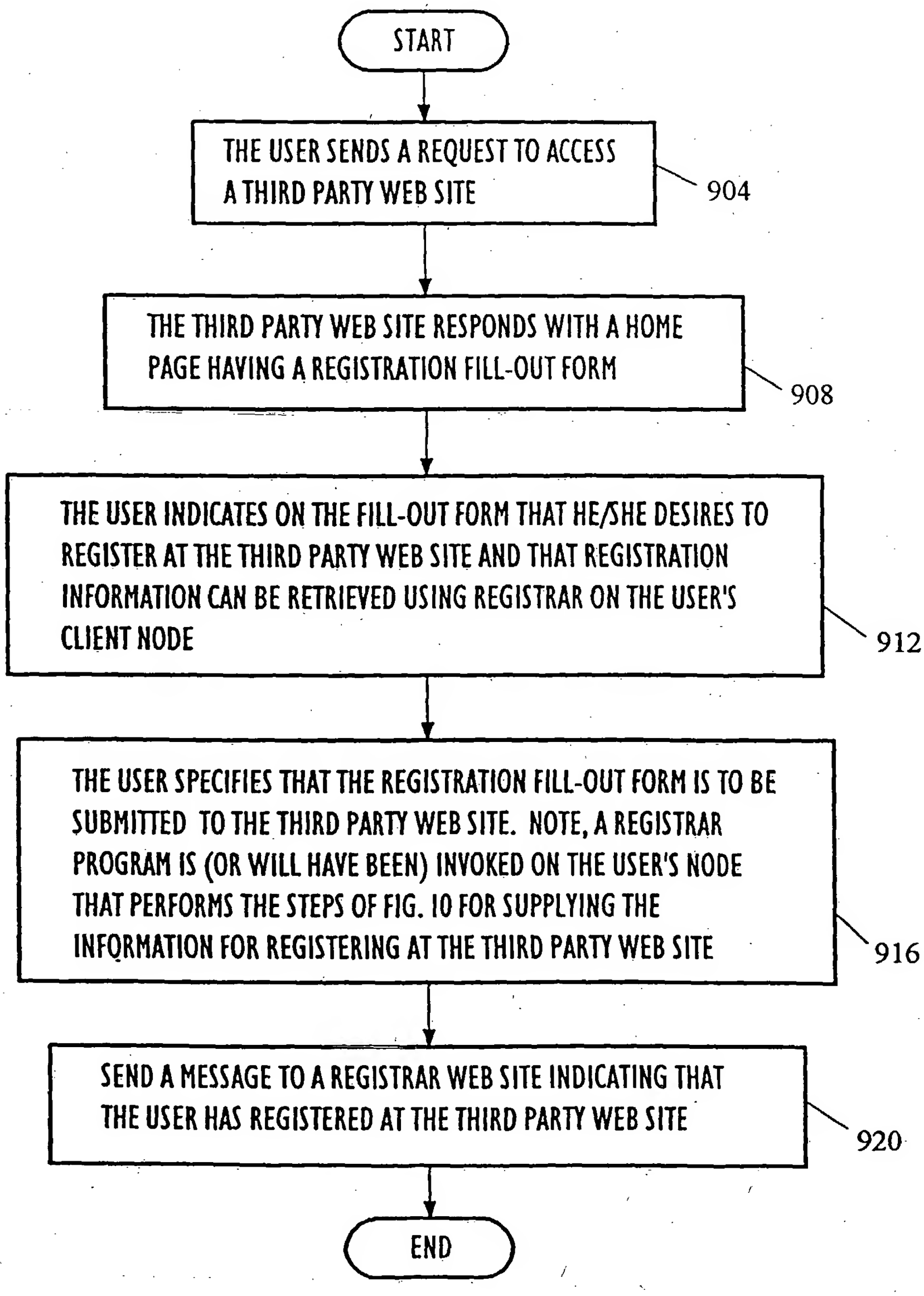

START
THE USER SENDS A REQUEST TO ACCESS A THIRD PARTY WEB SITE
904
THE THIRD PARTY WEB SITE RESPONDS WITH A HOME PAGE HAVING A REGISTRATION FILL-OUT FORM
908
THE USER INDICATES ON THE FILL-OUT FORM THAT HE/SHE DESIRES TO REGISTER AT THE THIRD PARTY WEB SITE AND THAT REGISTRATION INFORMATION CAN BE RETRIEVED USING REGISTRAR ON THE USER'S CLIENT NODE
912
THE USER SPECIFIES THAT THE REGISTRATION FILL-OUT FORM IS TO BE SUBMITTED TO THE THIRD PARTY WEB SITE. NOTE, A REGISTRAR PROGRAM IS (OR WILL HAVE BEEN) INVOKED ON THE USER'S NODE THAT PERFORMS THE STEPS OF FIG. 10 FOR SUPPLYING THE INFORMATION FOR REGISTERING AT THE THIRD PARTY WEB SITE
916
SEND A MESSAGE TO A REGISTRAR WEB SITE INDICATING THAT THE USER HAS REGISTERED AT THE THIRD PARTY WEB SITE
920
END

FIG. 14

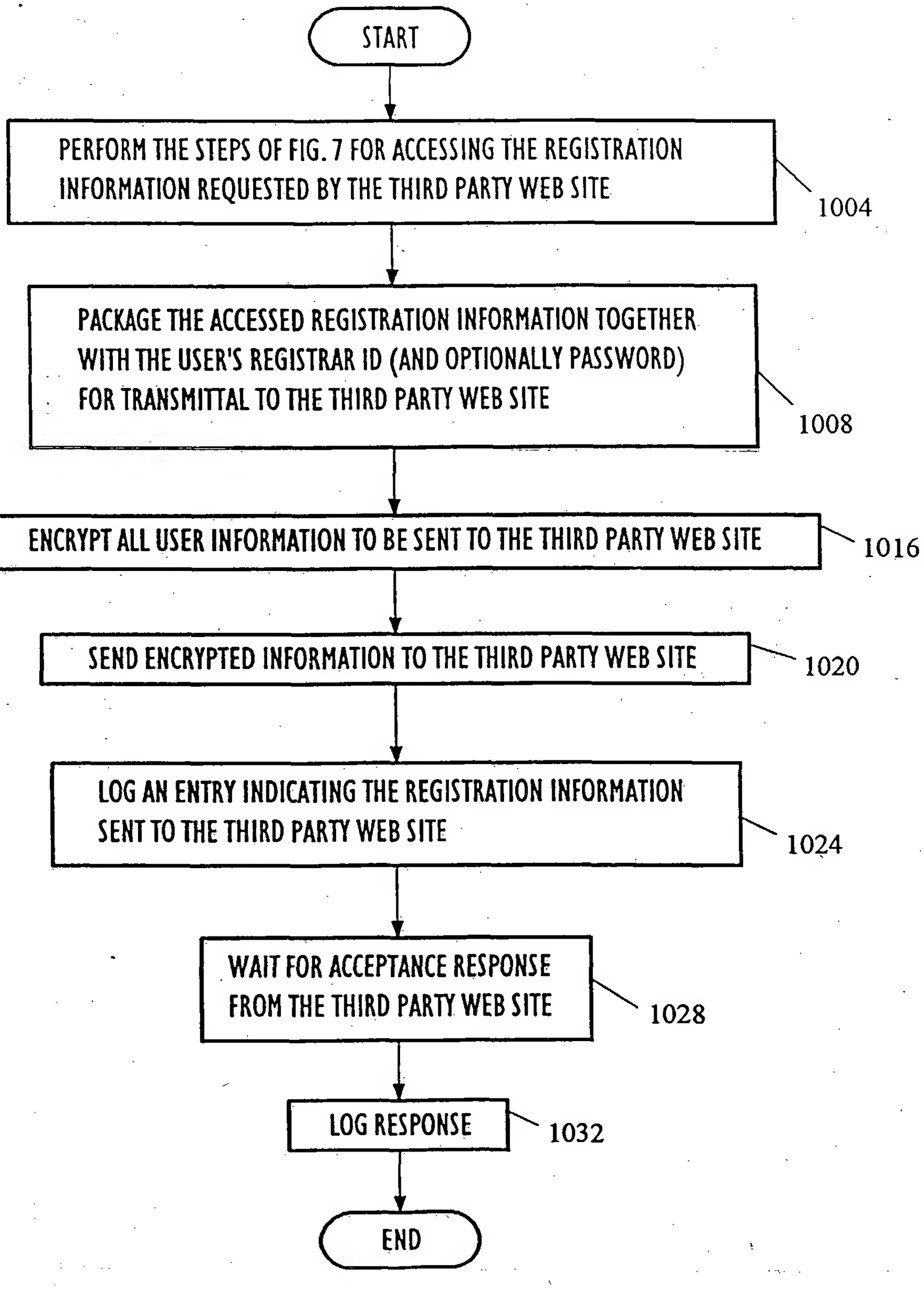
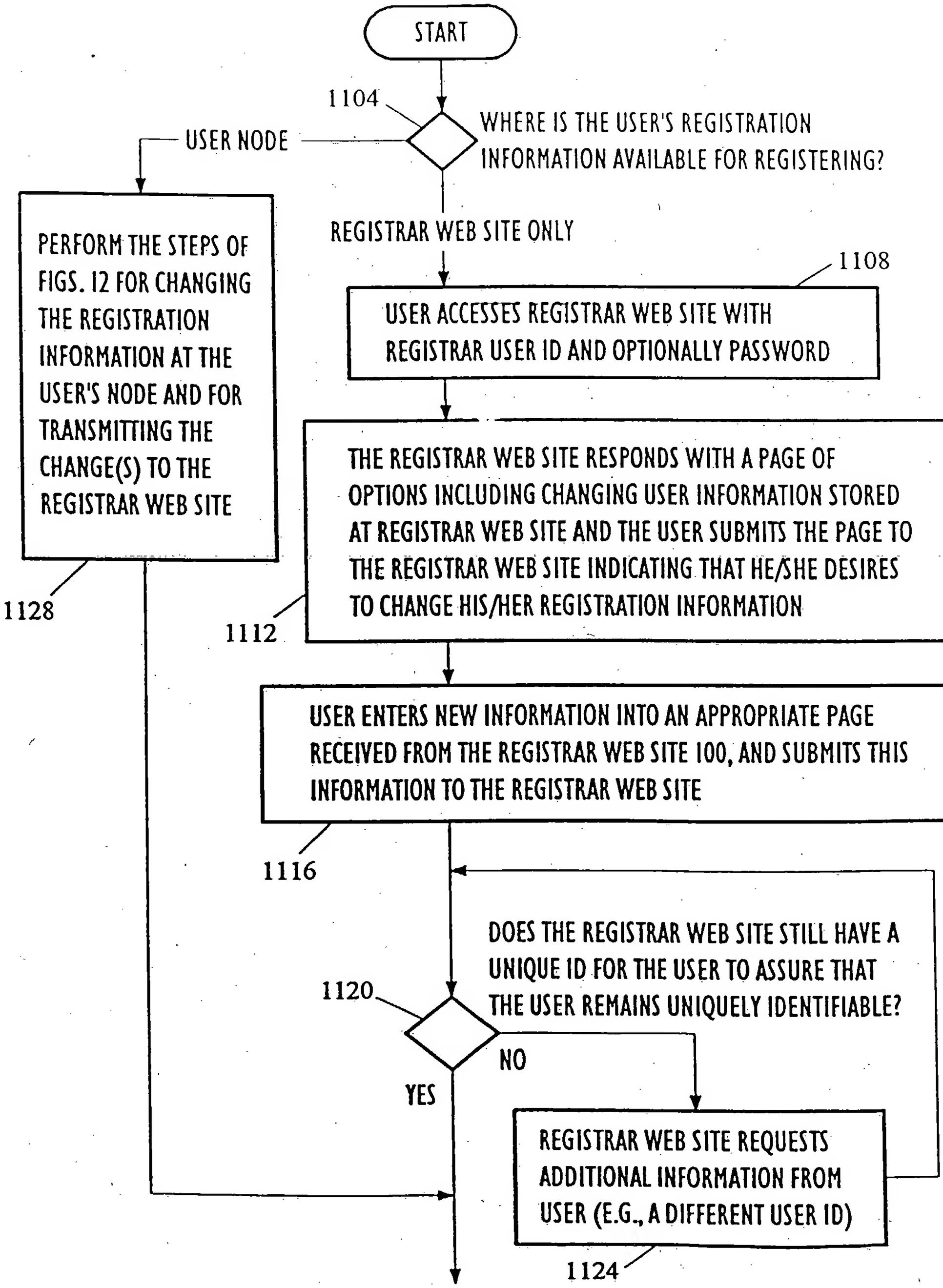

START
PERFORM THE STEPS OF FIG. 7 FOR ACCESSING THE REGISTRATION INFORMATION REQUESTED BY THE THIRD PARTY WEB SITE
1004
PACKAGE THE ACCESSED REGISTRATION INFORMATION TOGETHER WITH THE USER'S REGISTRAR ID (AND OPTIONALLY PASSWORD) FOR TRANSMITTAL TO THE THIRD PARTY WEB SITE
1008
ENCRYPT ALL USER INFORMATION TO BE SENT TO THE THIRD PARTY WEB SITE
1016
SEND ENCRYPTED INFORMATION TO THE THIRD PARTY WEB SITE
1020
LOG AN ENTRY INDICATING THE REGISTRATION INFORMATION SENT TO THE THIRD PARTY WEB SITE
1024
WAIT FOR ACCEPTANCE RESPONSE FROM THE THIRD PARTY WEB SITE
1028
LOG RESPONSE
1032
END

FIG. 15A


START
1104
WHERE IS THE USER'S REGISTRATION INFORMATION AVAILABLE FOR REGISTERING?
USER NODE
REGISTRAR WEB SITE ONLY
PERFORM THE STEPS OF FIGS. 12 FOR CHANGING THE REGISTRATION INFORMATION AT THE USER'S NODE AND FOR TRANSMITTING THE CHANGE(S) TO THE REGISTRAR WEB SITE
1128
1108
USER ACCESSES REGISTRAR WEB SITE WITH REGISTRAR USER ID AND OPTIONALLY PASSWORD
THE REGISTRAR WEB SITE RESPONDS WITH A PAGE OF OPTIONS INCLUDING CHANGING USER INFORMATION STORED AT REGISTRAR WEB SITE AND THE USER SUBMITS THE PAGE TO THE REGISTRAR WEB SITE INDICATING THAT HE/SHE DESIRES TO CHANGE HIS/HER REGISTRATION INFORMATION
1112
USER ENTERS NEW INFORMATION INTO AN APPROPRIATE PAGE RECEIVED FROM THE REGISTRAR WEB SITE 100, AND SUBMITS THIS INFORMATION TO THE REGISTRAR WEB SITE
1116
DOES THE REGISTRAR WEB SITE STILL HAVE A UNIQUE ID FOR THE USER TO ASSURE THAT THE USER REMAINS UNIQUELY IDENTIFIABLE?
1120
NO
YES
REGISTRAR WEB SITE REQUESTS ADDITIONAL INFORMATION FROM USER (E.G., A DIFFERENT USER ID)
1124

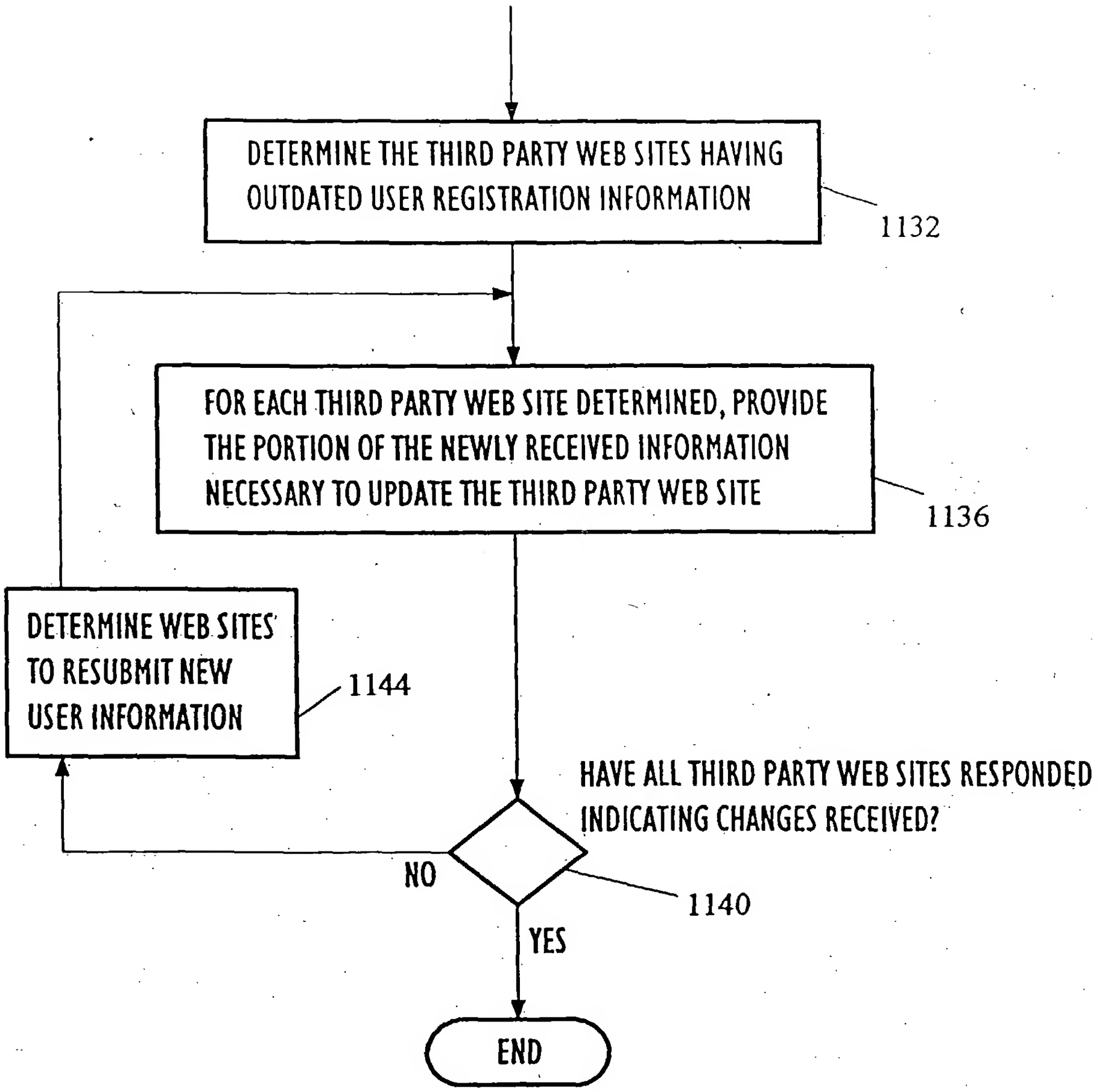
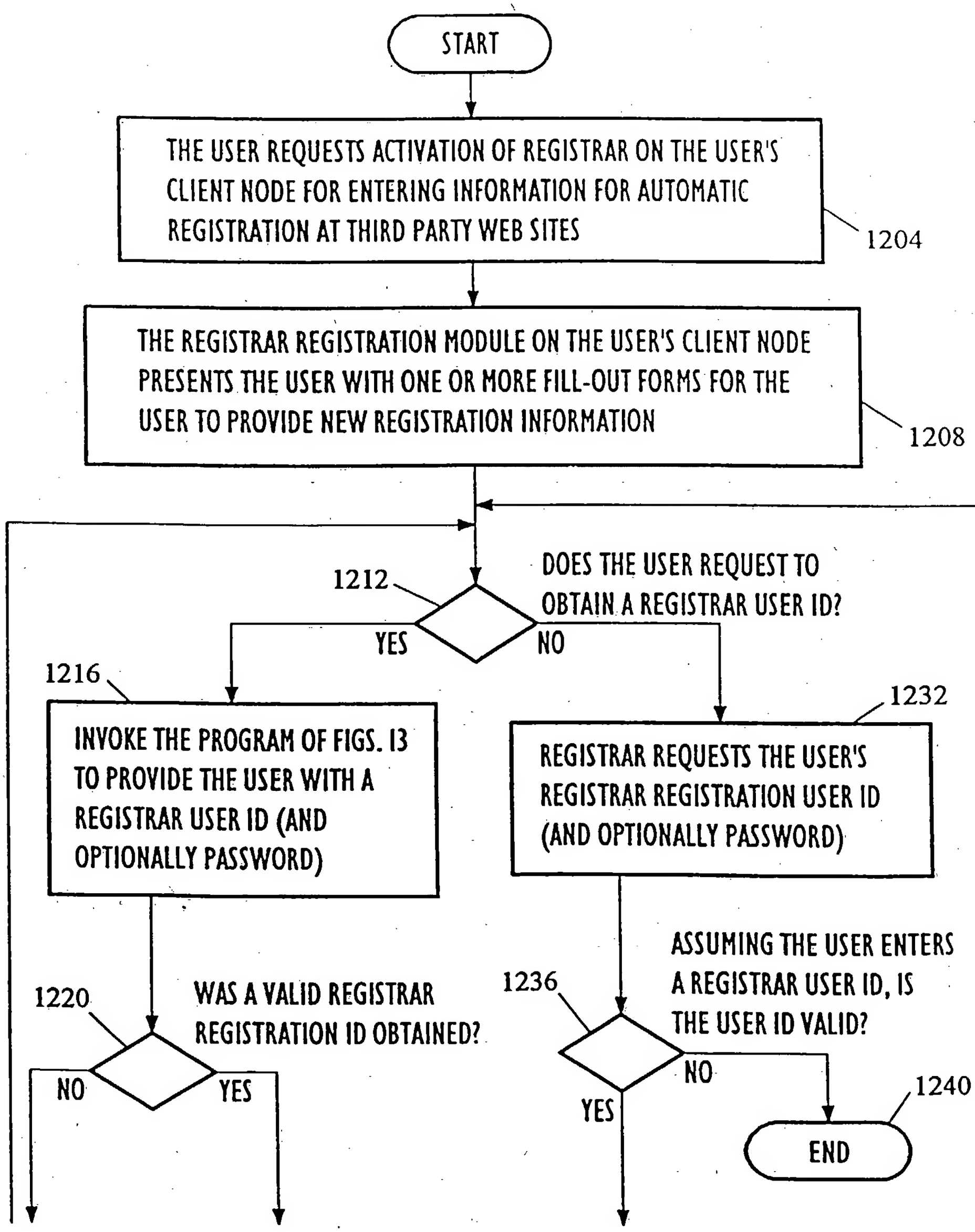

DETERMINE THE THIRD PARTY WEB SITES HAVING OUTDATED USER REGISTRATION INFORMATION
1132
FOR EACH THIRD PARTY WEB SITE DETERMINED, PROVIDE THE PORTION OF THE NEWLY RECEIVED INFORMATION NECESSARY TO UPDATE THE THIRD PARTY WEB SITE
1136
DETERMINE WEB SITES TO RESUBMIT NEW USER INFORMATION
1144
HAVE ALL THIRD PARTY WEB SITES RESPONDED INDICATING CHANGES RECEIVED?
NO
1140
YES
END

FIG. 15B

FIG. **16A**


START
THE USER REQUESTS ACTIVATION OF REGISTRAR ON THE USER'S CLIENT NODE FOR ENTERING INFORMATION FOR AUTOMATIC REGISTRATION AT THIRD PARTY WEB SITES
1204
THE REGISTRAR REGISTRATION MODULE ON THE USER'S CLIENT NODE PRESENTS THE USER WITH ONE OR MORE FILL-OUT FORMS FOR THE USER TO PROVIDE NEW REGISTRATION INFORMATION
1208
1212
DOES THE USER REQUEST TO OBTAIN A REGISTRAR USER ID?
YES
NO
1216
INVOKE THE PROGRAM OF FIGS. 13 TO PROVIDE THE USER WITH A REGISTRAR USER ID (AND OPTIONALLY PASSWORD)
1232
REGISTRAR REQUESTS THE USER'S REGISTRAR REGISTRATION USER ID (AND OPTIONALLY PASSWORD)
1220
WAS A VALID REGISTRAR REGISTRATION ID OBTAINED?
NO
YES
1236
ASSUMING THE USER ENTERS A REGISTRAR USER ID, IS THE USER ID VALID?
NO
YES
1240
END

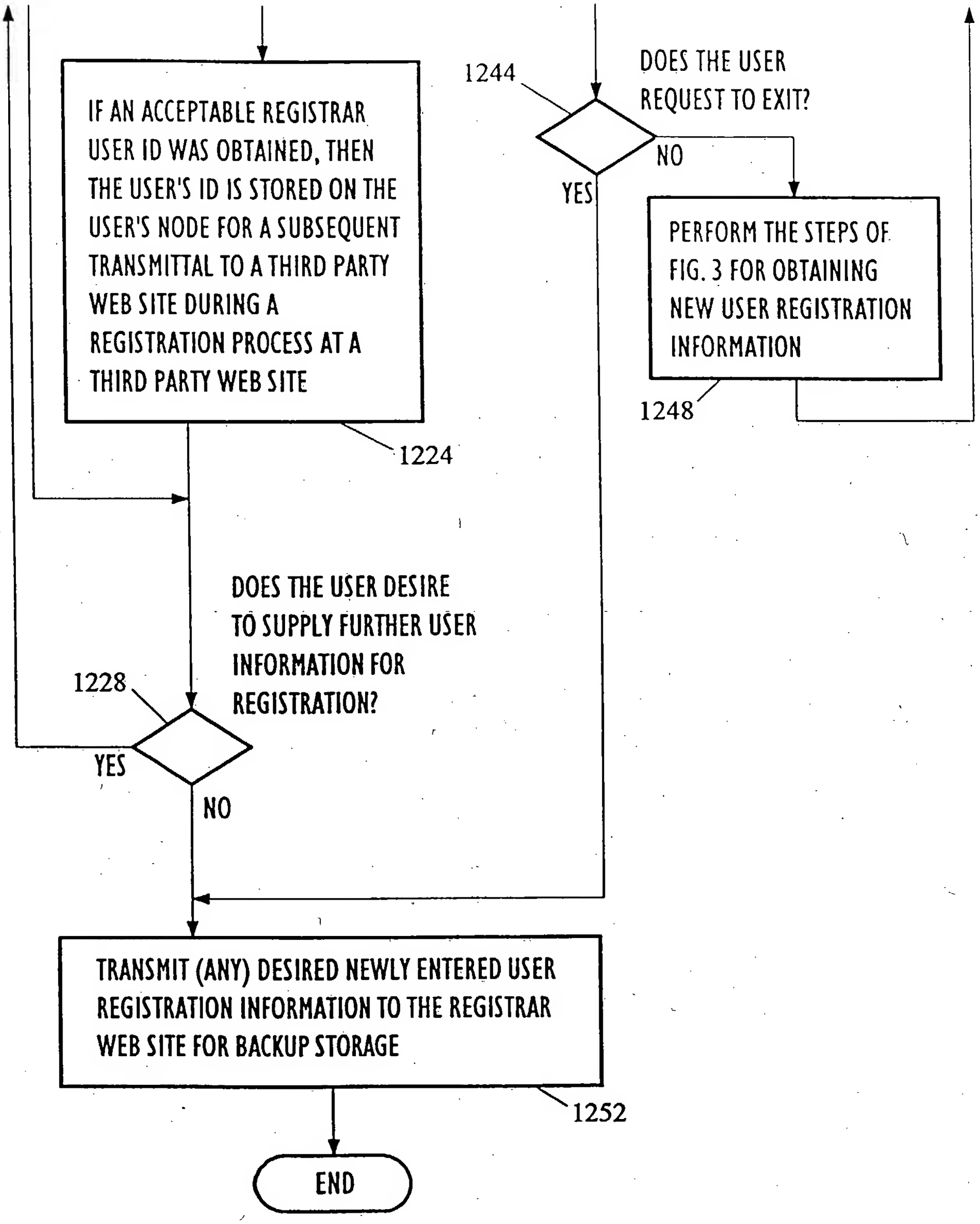
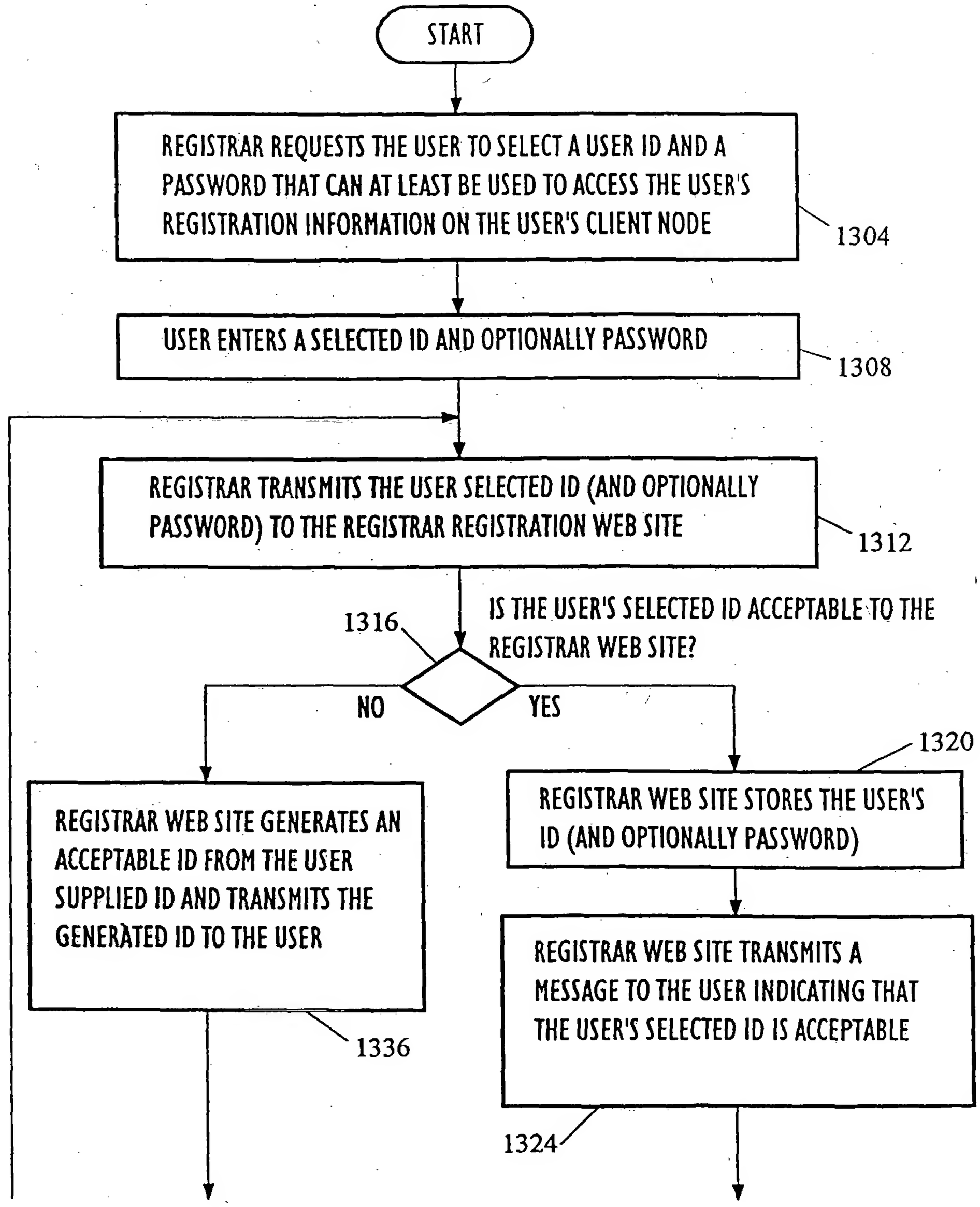

IF AN ACCEPTABLE REGISTRAR USER ID WAS OBTAINED, THEN THE USER'S ID IS STORED ON THE USER'S NODE FOR A SUBSEQUENT TRANSMITTAL TO A THIRD PARTY WEB SITE DURING A REGISTRATION PROCESS AT A THIRD PARTY WEB SITE
1224
DOES THE USER DESIRE TO SUPPLY FURTHER USER INFORMATION FOR REGISTRATION?
1228
YES
NO
TRANSMIT (ANY) DESIRED NEWLY ENTERED USER REGISTRATION INFORMATION TO THE REGISTRAR WEB SITE FOR BACKUP STORAGE
1252
END
1244
DOES THE USER REQUEST TO EXIT?
NO
YES
PERFORM THE STEPS OF FIG. 3 FOR OBTAINING NEW USER REGISTRATION INFORMATION
1248

FIG. 16B

FIG. 17A


START
REGISTRAR REQUESTS THE USER TO SELECT A USER ID AND A PASSWORD THAT CAN AT LEAST BE USED TO ACCESS THE USER'S REGISTRATION INFORMATION ON THE USER'S CLIENT NODE
1304
USER ENTERS A SELECTED ID AND OPTIONALLY PASSWORD
1308
REGISTRAR TRANSMITS THE USER SELECTED ID (AND OPTIONALLY PASSWORD) TO THE REGISTRAR REGISTRATION WEB SITE
1312
1316
IS THE USER'S SELECTED ID ACCEPTABLE TO THE REGISTRAR WEB SITE?
NO
YES
REGISTRAR WEB SITE GENERATES AN ACCEPTABLE ID FROM THE USER SUPPLIED ID AND TRANSMITS THE GENERATED ID TO THE USER
1336
1320
REGISTRAR WEB SITE STORES THE USER'S ID (AND OPTIONALLY PASSWORD)
REGISTRAR WEB SITE TRANSMITS A MESSAGE TO THE USER INDICATING THAT THE USER'S SELECTED ID IS ACCEPTABLE
1324

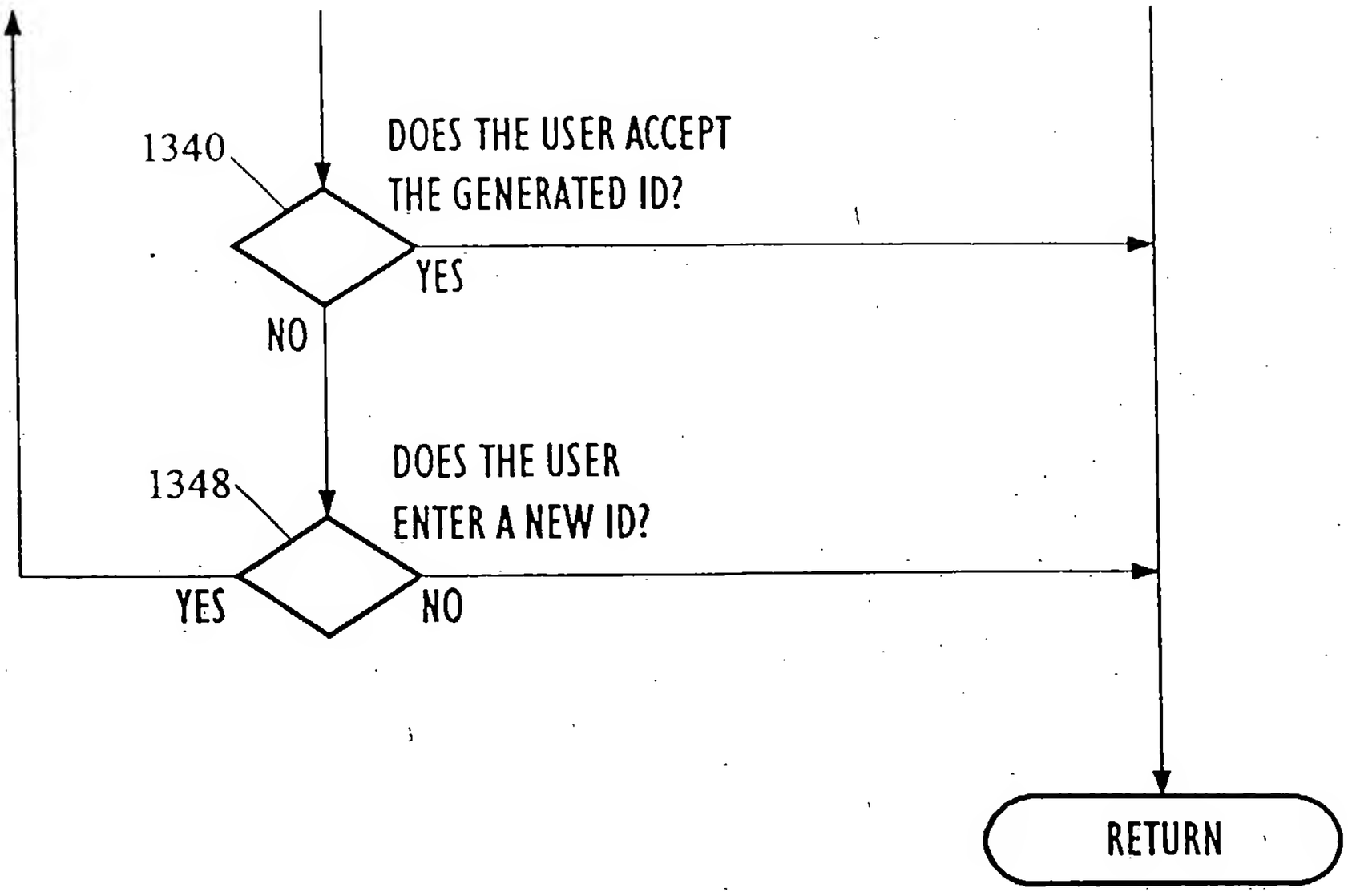

1340
DOES THE USER ACCEPT THE GENERATED ID?
YES
NO
1348
DOES THE USER ENTER A NEW ID?
YES
NO
RETURN

FIG. 17B

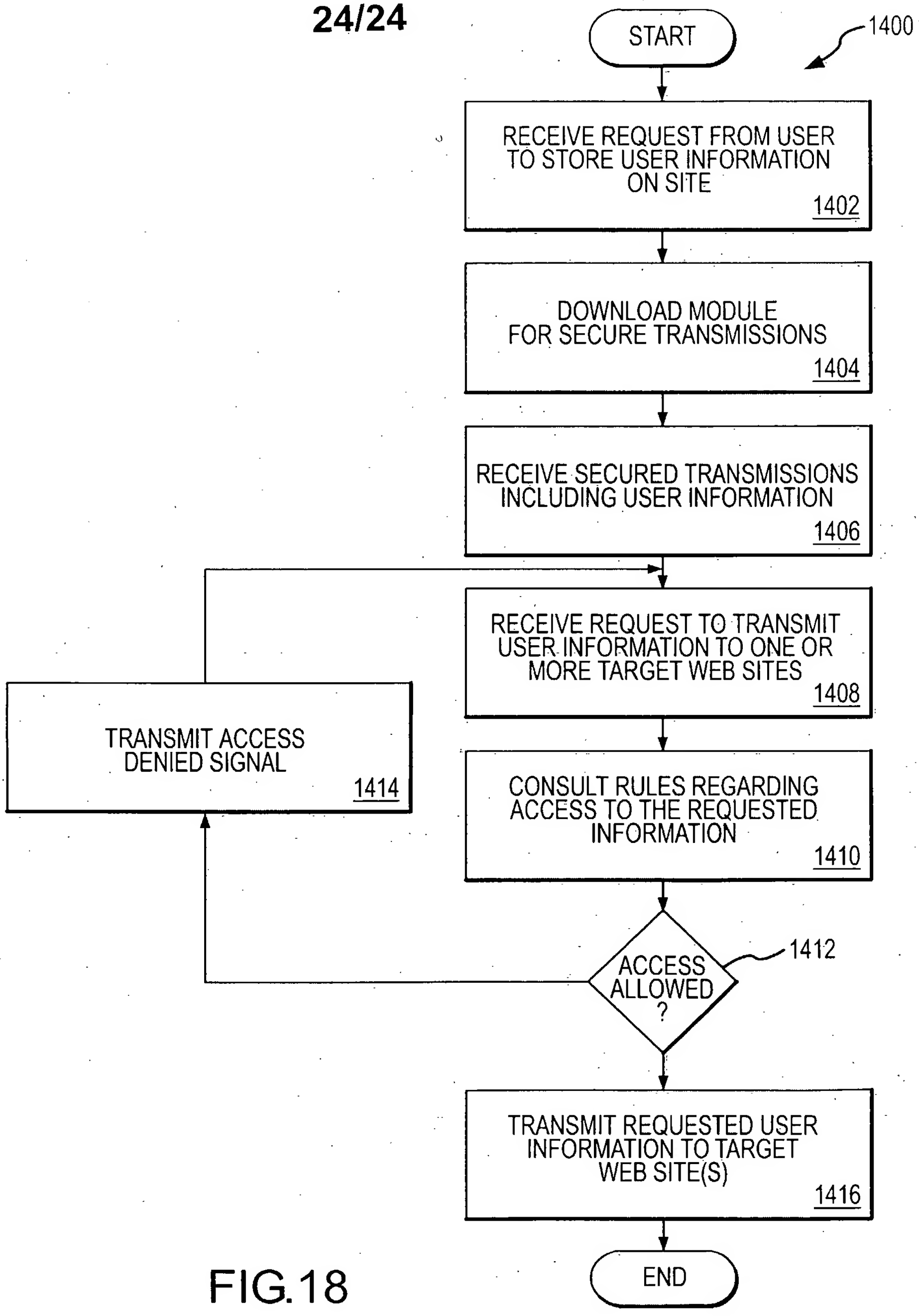

START
1400
RECEIVE REQUEST FROM USER TO STORE USER INFORMATION ON SITE
1402
DOWNLOAD MODULE FOR SECURE TRANSMISSIONS
1404
RECEIVE SECURED TRANSMISSIONS INCLUDING USER INFORMATION
1406
RECEIVE REQUEST TO TRANSMIT USER INFORMATION TO ONE OR MORE TARGET WEB SITES
1408
CONSULT RULES REGARDING ACCESS TO THE REQUESTED INFORMATION
1410
ACCESS ALLOWED ?
1412
TRANSMIT ACCESS DENIED SIGNAL
1414
TRANSMIT REQUESTED USER INFORMATION TO TARGET WEB SITE(S)
1416
END

FIG.18